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Analysis of the Relationship Between Knowledge About Schizophrenia and Family Support on Medication Adherence Among Those Undergoing Repeated Treatment at Dr. Soeharto Heerdjan Mental Hospital

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Abstract

Background: Schizophrenia is a severe mental disorder characterized by difficulties in thought processes. One of the factors influencing repeated hospitalizations in patients with schizophrenia is the knowledge about schizophrenia and family support, which can lead to medication non-adherence.

Methods: This study employs a cross-sectional approach with 129 participants who have a family member experiencing repeated hospitalizations or long-term patients diagnosed with schizophrenia at dr. Soeharto Heerdjan Psychiatric Hospital. The sampling data collection technique uses probability. Data were collected using questionnaire with a reliability value for knowledge about schizophrenia (KASQ) of 0.945, informational support 0.935, assessment/award support 0.915, emotional 0.907, and medication adherence (MARS) 0.960. Bivariate data analysis using logistic regression and multivariate data using the multiple logistic regression test.

Results: The research result showed that the majority of respondents had insufficient knowledge 47.3 % with a p-value of 0.000 that there was a significant relationship between family knowledge about schizophrenia and adherence to taking medication. Informational support is 66.7% lacking with a p-value 0.000 a significant relationship between informational support and medication adherence. Support for assessment/reward is less than 78.3% with a p-value 0.000 that there is significant relationship between support for assessment/reward and adherence to taking medication. Instrumental support was 77.5% with a p-value 0.000 that there was a significant relationship between instrumental support and compliance with taking medication. Emotional support was less than 77.5% with a p-value 0.000 that there was significant relationship between emotional support and compliance with taking medication. The dominant factor among families of patients diagnosed with schizophrenia experiencing repeated hospitalizations at dr. Soeharto Heerdjan Psychiatric Hospital was the variable of family informational support with an odds ratio of 32.003. This indicates that families with informational support are 32 times more likely to have repeated hospitalizations compared to families without informational support, after controlling for variables of knowledge about schizophrenia, family instrumental support, and family appraisal/esteem support.

Conclusion: There is a relationship between knowledge about schizophrenia, informational support, appraisal/esteem support, instrumental support, and emotional support with medication adherence.

Keywords: family support, medication adherence, repeated hospitalizations, schizophrenia

Introduction

World Health Organization (WHO)¹ states that 20 million people globally exhibit symptoms of schizophrenia, a severe mental disorder. Schizophrenia is characterized by difficulties in thought processes, which can lead to hallucinations and abnormal behavior.^{1,2} Data findings from dr. Soeharto Heerdjan Psychiatric Hospital (RSJSH) from 2018 to 2021 showed that patients experienced mental disorders such as schizophrenia, schizoaffective disorder, bipolar disorder, and organic mental disorders (OMDs), among others. Schizophrenia was the most prevalent case. A phenomenon observed was that patients with mental disorders returned to the hospital within 2-7 days after being discharged. In 2018, there were 1,032 patients, with schizophrenia accounting for 68% of cases. In 2021, out of 1,759 patients, schizophrenia accounted for 91.8% of cases. This increase in repeated hospitalizations is attributed to a lack of knowledge about schizophrenia, insufficient family support, and the resulting medication non-adherence.³

Families with low awareness of the probability of repeated hospitalizations show a 7.18% risk after the medication adherence process. This is because poor perceptions of patient treatment can arise. However, if families have a positive stigma, they will have a long-term medication adherence attitude, which is a supporting factor for medication compliance.^{4,5} Therefore, good knowledge about schizophrenia will positively influence medication adherence by eliminating the negative stigma around patients. Knowledge about schizophrenia is essential for families, supported by family involvement in the treatment process.

Family support is a crucial element in helping individuals resolve issues. A study in Aceh showed that with good categorization, informational support was 50.9% (P value 0.003), esteem support was 58.9% (P value 0.008), instrumental support was 52.8% (P value 0.035), and emotional support was 60.4% (P value 0.005).⁶ From this study, it can be concluded that family support can influence medication adherence.

The treatment process for schizophrenia patients requires medication adherence to prevent repeated hospitalizations, necessitating cooperation between patients and their families.^{7,8} Therefore, medication adherence greatly influences the prevention of repeated hospitalizations in schizophrenia patients.

Based on a preliminary study conducted by the researcher with 10 families of schizophrenia patients who experienced repeated hospitalizations, it was found through interviews that 34% had poor knowledge about schizophrenia and 45% had insufficient family support for medication adherence. This prompted the researcher to conduct a study analyzing the relationship between knowledge about schizophrenia and family support for medication adherence among patients experiencing repeated hospitalizations at dr. Soeharto Heerdjan Psychiatric Hospital.

Method

This study employed a correlational research design. The sample consists of 116 respondents from a population of 129 respondents. The data collection procedure began with preparations, such as obtaining administrative approval from FIK UMJ and RS Khusus Duren Sawit to conduct validity tests and then conducting the research at dr. Soeharto Heerdjan Psychiatric Hospital.

The population in this study were families who had family members diagnosed with schizophrenia who were repeatedly treated at RSJSH. This research uses a probability sampling technique, which is a technique for determining the population that has the opportunity to be selected or chosen as a sample, with the easiest type of probability, namely simple random sampling, used to determine whether the sample is taken at random.⁹ Where the selection is done by determining that subjects who meet the criteria are included in the research within a certain time so that the required sample size can be met. The sample size obtained will be by the specified number.

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The type of tool used in data collection is a questionnaire guide which contains several closed-ended questions. A questionnaire is a data collection technique that is carried out by giving a set of questions or written statements to respondents to answer. Consequently, the researcher was granted the opportunity to conduct research at RSJSH for six months after passing the ethics review from RSJSH.

Next, the researcher conducted the study using instruments that had previously undergone validity testing. The research instruments consisted of a questionnaire on knowledge about schizophrenia, modified from the Medication Adherence Rating Scale (MARS), and a family support questionnaire modified by Bukit Nursalam (2020)⁹ and (2019)¹⁰. The knowledge about schizophrenia questionnaire contained 10 questions validity values ranging from 0.452 to 0.947, indicating that the corrected item-total correlation (r -value) > the table value (0.440), thus all 10 questions were deemed valid. Furthermore, the informational support questionnaire has 8 questions which are declared valid with a validity value of 0.723-0.949, the assessment/reward support questionnaire has 8 questions which are declared valid with a value of 0.626-0.958, the 8-question instrumental support questionnaire is declared valid with a value of 0.673-0.928, the questionnaire emotional support has 8 questions declared valid with value of 0.574-0.961 and the medication adherence questionnaire has 10 questions declared valid with a value of 0.753-0.948.

The data analysis in this study consists of univariate, bivariate, and multivariate analyses. Chi-square test and logistic regression were used in this study on the independent variables, which include knowledge about schizophrenia, informational support, appraisal/esteem support, instrumental support, and emotional support. The dependent variable is medication adherence, while income was analyzed using an independent t-test. Logistic regression analysis was chosen because the dependent variable is categorical (compliant and non-compliant). Logistic regression aims to assess how much the independent variables influence the dependent variable, expressed as Odds Ratio (OR). This approach manages the data without the need for normality tests or classical assumption tests on the independent variables.¹¹

Results

Univariate Analysis

Table 1. Frequency Distribution Based on Demographics

Respondent Characteristics	N	Percentage (%)
Early Adults (20 – 40 Years)	24	18,6
Middle-aged adults (41 – 60 Years)	90	69,8
Elderly (> 60 Years)	15	11,6
Total	129	100
Male	44	34,1
Female	85	65,9
Total	129	100
Low Education (Elementary - Junior High)	41	31,8
High Education (High School - University)	88	68,2
Total	129	100
< Rp. 1.500.000,00	37	28,7
Rp. 1.600.000- Rp. 3.000.000	41	31,8
>Rp. 3.100.000,00	51	39,5
Total	129	100

Based on [Table 1](#) above, it shows that the majority of respondents are middle-aged adults (41-60 years old), totaling 90 individuals (69.8%). The majority of respondents are female, numbering 85 individuals (65.9%). Most respondents have higher education, totaling 88 individuals (68.2%), while the majority have an income > Rp. 3,100,000, totaling 51 individuals (39.5%).

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Table 2. Frequency Distribution Based on Knowledge About Schizophrenia, Informational Support, Appraisal/Recognition Support, Instrumental Support and Emotional Support

Frequency Distribution	N	Percentage (%)
Knowledge About Schizophrenia		
Poor	61	47,3
Fair	30	23,3
Good	38	29,5
Total	129	100
Informational Support		
Poor	86	66,7
Good	43	33,3
Total	129	100
Appraisal/Recognition Support		
Poor	101	78,3
Good	28	21,7
Total	129	100
Instrumental Support		
Poor	100	77,5
Good	29	22,5
Total	129	100
Emotional Support		
Poor	100	77,5
Good	29	22,5
Total	129	100

Based on [Table 2](#) above, it shows that the majority of respondents' knowledge about schizophrenia is in the poor category, namely 61 respondents (47.3%). Most of the respondents' information support was in the poor category, namely 86 respondents (66.7%). Respondents' assessment/recognition support was in the poor category, with 101 respondents (78.3%) in the poor category. Most of the respondents' instrumental support fell into the poor category, amounting to 100 respondents (77.5%). The majority of respondents' emotional support fell into the poor category, amounting to 100 respondents (77.5%).

Bivariate Analysis

Table 3. Bivariate Analysis Results Knowledge About Schizophrenia and Medication Adherence

Knowledge About Schizophrenia	Medication Adherence				Total	P Value	OR
	Non-adherent		Adherent				
	N	%	N	%			
Poor	59	96,7	2	3,3	61	100	0,000 6,581
Fair	27	90	3	10	30	100	
Good	18	47,4	20	52,6	38	100	
Total	104	80,6	25	19,4	129	100	

The analysis in [Table 3](#) shows that respondents with good knowledge of schizophrenia are adherent to medication in 20 cases (52.6%) and non-adherent in 18 cases (47.4%). The statistical test resulted in a p-value = 0.000 < 0.05. Therefore, it can be concluded that there is a significant relationship between family knowledge about schizophrenia and medication adherence. The OR value of 6.581 indicates that families with good knowledge about schizophrenia have a 6.6 times higher chance of medication adherence compared to families with poor knowledge about schizophrenia. This finding aligns with research conducted by Setyaningsih, Fitria, and Supriyanah (2019)¹² which also

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found a significant relationship between knowledge and medication adherence in schizophrenia patients with a p value < 0.05 (0.035).

Thus, it can be assumed that family knowledge about schizophrenia is crucial in providing information about medication adherence in schizophrenia patients, thereby reducing negative stigma and potentially decreasing the rate of rehospitalization.

Table 4. Bivariate Analysis Results Informational Support and Medication Adherence

Informational Support	Medication Adherence						P Value	OR
	Non-adherent		Adherent		Total			
	N	%	N	%	N	%		
Poor	83	96,5	3	3,5	86	100	0,000	4,572
Good	21	48,8	22	51,2	43	100		
Total	104	80,6	25	19,4	129	100		

The analysis in Table 4 shows that respondents with good informational support from family are adherent to medication in 22 cases (51.2%) and non-adherent in 21 cases (48.8%). The statistical test resulted in a p-value = 0.000 < 0.05, indicating a significant relationship between informational support from family and medication adherence. The OR value of 28.984 means that families providing good informational support have a 29 times higher chance of medication adherence compared to families providing poor informational support.

This finding is consistent with research conducted by Yanti and Armiyadi (2020)⁶ which found a significant relationship between family informational support and medication adherence with a p-value of 0.003, as p-value < 0.05.

Therefore, it can be assumed that the research results indicate the need for informational support for respondents so that families can make informed decisions in providing explanations about the benefits and risks of medication adherence in schizophrenia patients.

Table 5. Bivariate Analysis Results Assessment/Appreciation Support and Medication Adherence

Assessment/ Appreciation Support	Medication Adherence						P Value	OR
	Non-adherent		Adherent		Total			
	N	%	N	%	N	%		
Poor	90	89,1	11	10,9	101	100	0,000	8,182
Good	14	50	14	50	28	100		
Total	104	80,6	25	19,4	129	100		

The analysis in Table 5 shows that respondents with good assessment/appreciation support from family are adherent to medication in 14 cases (50%) and non-adherent in 14 cases (50%). The statistical test resulted in a p-value = 0.000 < 0.05, indicating a significant relationship between assessment/appreciation support from family and medication adherence. The OR value of 8.182 means that families providing good assessment/appreciation support have an 8.2 times higher chance of medication adherence compared to families providing poor assessment/appreciation support.

This finding is consistent with research conducted by Yanti and Armiyadi (2020)⁶ which found a significant relationship between family assessment/appreciation support and medication adherence with a p-value of 0.000, as p-value < 0.05.

Therefore, it can be assumed that the research results indicate the need for assessment/appreciation support for respondents, such as positive attitudes within the

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family, guidance, attention, and support to enhance client motivation for good medication adherence.

Table 6. Bivariate Analysis Instrumental Support and Medication Adherence

Instrumental Support	Medication Adherence						P Value	OR
	Non-adherent		Adherent		Total			
	N	%	N	%	N	%		
Poor	94	94	6	6	100	100	0,000	29,767
Good	10	34,5	19	65,5	29	100		
Total	104	80,6	25	19,4	129	100		

The analysis in Table 6 shows that respondents with good instrumental support from family are adherent to medication in 19 cases (65.5%) and non-adherent in 10 cases (34.5%). The statistical test resulted in a p-value = 0.000 < 0.05, indicating a significant relationship between instrumental support from family and medication adherence. The OR value of 29.767 means that families providing good instrumental support have a 29.7 times higher chance of medication adherence compared to families providing poor instrumental support.

This finding is consistent with research conducted by Yanti and Armiyadi (2020)⁶ which found a significant relationship between family instrumental support and medication adherence with a p-value of 0.035, as p-value < 0.05.

Therefore, it can be assumed that the research results indicate the need for instrumental support for respondents, such as direct assistance with food needs and motivating clients to adhere to medication for schizophrenia patients.

Table 7. Bivariate Analysis Emotional Support and Medication Adherence

Emotional Support	Medication Adherence						P Value	OR
	Non-adherent		Adherent		Total			
	N	%	N	%	N	%		
Poor	91	91	9	9	100	100	0,000	12,444
Good	13	44,8	16	55,2	29	100		
Total	104	80,6	25	19,4	129	100		

The analysis in Table 7 shows that respondents with good emotional support from family are adherent to medication in 16 cases (55.2%) and non-adherent in 13 cases (44.8%). The statistical test resulted in a p-value = 0.000 < 0.05, indicating a significant relationship between emotional support from family and medication adherence. The OR value of 12.444 means that families providing good emotional support have a 12.4 times higher chance of medication adherence compared to families providing poor emotional support.

This finding is consistent with research conducted by Yanti and Armiyadi (2020)⁶ which found a significant relationship between family emotional support and medication adherence with a p value of 0.005, as p-value < 0.05.

Therefore, it can be assumed that the research results indicate the crucial need for emotional support for respondents, such as accepting all conditions and providing encouragement to patients to adhere to medication. Emotional support is a form of family support in the treatment process that provides comfort, safety, and attention to the patient.

Multivariate Analysis

Table 8. Final Results of Multivariate Analysis

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	Sig.	Exp (B)	95% CI for EXP(B)	
			Lower	Upper
PTS	,009	5,229	1,516	18,041
DINFO(1)	,001	32,003	3,898	262,716
DPEN(1)	,076	6,438	,822	50,419
DINS(1)	,011	8,585	1,632	45,163
Constant	,000	,001		

a. Variable(s) entered on step 1: PTS, DINFO, DPEN, DINS.

Based on the [Table 8](#), the multivariate analysis results indicate that the variable most strongly associated with medication adherence among schizophrenia patients receiving repeated treatment is family informational support, with the highest OR value of 32.003. This means that family informational support increases medication adherence in patients with schizophrenia undergoing repeated treatment by 32 times compared to families with inadequate informational support, after controlling for knowledge about schizophrenia, family informational support, and family assessment/recognition support. Therefore, educating families about medication adherence is crucial to provide them with important information for the stability of schizophrenia patients, enabling them to make informed decisions.

Discussion

The statistical analysis using simple logistic regression revealed a p-value of 0.000, which is smaller than α (0.05) and thus fails to reject the null hypothesis. This indicates a significant relationship between knowledge about schizophrenia and medication adherence among patients undergoing repeated treatment. This finding aligns with a study by Setyaningsih, Fitria, and Supriyanah (2019)¹² titled "Factors influencing medication adherence in schizophrenia patients experiencing hallucinations at RS Husada," which found a significant association between knowledge and medication adherence in schizophrenia patients with a p-value < 0.05 (0.035). Therefore, it can be inferred that families need knowledge about schizophrenia to provide information regarding medication adherence for schizophrenia patients, thereby reducing negative stigma and recurring hospitalizations.

Similarly, the statistical analysis using simple logistic regression yielded a p-value of 0.000, indicating a significant relationship between family informational support and medication adherence among patients undergoing repeated treatment. This finding is consistent with research by Yanti and Armiyadi (2020)⁶ which reported a significant association between family informational support and medication adherence with a p-value of 0.003 ($p < 0.05$). According to Sun et al. (2019)¹³ when families possess critical information about schizophrenia treatment, it can alleviate the illness and reduce recurring hospitalizations. Therefore, the study suggests that informational support is crucial for families to make informed decisions about the benefits and risks of medication adherence for schizophrenia patients. Families serve as providers of information, such as explaining medication adherence, and providing advice, and opinions, which can be used to address issues effectively. This approach can motivate patients to adhere to treatment and consequently reduce the frequency of hospitalizations.

The statistical analysis conducted by the researcher using simple logistic regression yielded a p-value of 0.000, which is smaller than α (0.05), indicating that the null hypothesis is rejected. This suggests a significant relationship between family appraisal/support and medication adherence among patients undergoing repeated treatment. The findings of this study are consistent with those of Yanti and Armiyadi (2020)⁶ who also found a significant association between family appraisal/support and medication adherence with a p-value of 0.000 ($p < 0.05$). If patients can perform activities and adhere to medication properly, it is advisable to provide rewards when these tasks are accomplished, as this can be a supportive

factor within the family, making patients feel valued by the family.¹⁴ Therefore, it can be inferred that family appraisal/support is needed by respondents in families that exhibit positive attitudes, and provide guidance, attention, and support to enhance client motivation to adhere to medication properly. One form of appraisal/support is encouraging patients not to give up on their recovery or mental health control.

The statistical analysis conducted by the researcher using simple logistic regression yielded a p-value of 0.000, which is smaller than α (0.05), indicating that the null hypothesis is rejected. This means there is a relationship between family instrumental support and medication adherence among patients undergoing repeated treatment. These findings are consistent with the study by Yanti and Armiyadi (2020)⁶ which found a significant association between family instrumental support and medication adherence with a p-value of 0.035 ($p < 0.05$). According to Friedman in Rahwati, Hani and Rosyidah (2020)¹⁵ instrumental support refers to concrete and practical assistance provided by families, such as daily necessities, patient rest, meals, and beverages. Therefore, it can be inferred that instrumental support, such as direct assistance with food needs and motivating clients to adhere to medication among schizophrenia patients, is crucially needed by respondents. This form of instrumental support can reduce the burden on patients, as respondents can directly address material-related issues. In this way, it can also reduce the rate of repeat hospitalizations because patients and families support each other in monitoring and motivating clients to adhere to regular treatment.

The statistical analysis used by the researcher, employing simple logistic regression, yielded a p-value of 0.000, which is smaller than α (0.05), indicating that the null hypothesis is rejected. Therefore, there is a relationship between family emotional support and medication adherence among patients undergoing repeated treatment. These findings are consistent with the study by Yanti and Armiyadi (2020)⁶ which found a significant association between family emotional support and medication adherence with a p-value of 0.005 ($p < 0.05$). According to Friedman in Rahwati, Hani and Rosyidah (2020)¹⁵ emotional support within the family is considered the most comfortable and safe environment for rest to stabilize emotions and aid in recovery. This support is manifested through attention and fostering trust in patients. Thus, it can be inferred that the research findings highlight the crucial need for family emotional support among respondents by accepting all conditions and providing encouragement to patients to adhere to medication. Emotional support represents a form of family support in the treatment process, offering comfort, safety, and attention, and instilling confidence that patients will stabilize and adhere to their treatment regimen regularly.

The statistical test used by the researcher was an independent t-test with a p-value of 0.644, indicating that the p-value is greater than 0.05. This suggests that there is no significant relationship between respondents' average income and medication adherence. These findings contrast with those of Setyaningsih, Fitria, and Supriyanah (2019)¹² who reported a significant association between economic status and medication adherence with a p-value of 0.005 ($p < 0.05$). According to the literature by Setyaningsih, Fitria, and Supriyanah (2019)¹² the duration of patient care affects the costs incurred for treatment, potentially reducing family income due to the financial support required for treatment processes.

Based on the results of the multivariate analysis using multiple logistic regression, the variable most dominant and closely related to medication adherence in patients undergoing repeated treatment is family informational support. With a strong correlation coefficient (Beta Coefficient (Exp (B)) = 32.003), informational support shows the strongest association with medication adherence. Therefore, this research indicates that achieving success in medication adherence requires improving family informational support, instrumental support, appraisal/award support, and knowledge about schizophrenia. With strong family support, it is crucial to reinforce families who are compliant by providing informational support, which significantly impacts medication

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adherence in patients undergoing repeated treatment. Family informational support involves providing advice and guidance to build and support patients in their treatment regimen.⁶ Positive suggestions and advice from family informational support can be utilized effectively in the treatment process to address patient care challenges.¹⁵ Therefore, educating families about medication adherence is essential to emphasize the importance of stability for schizophrenia patients and to facilitate informed decision-making.

Conclusion

Based on the research findings, it shows that there is a relationship between knowledge about schizophrenia and family support towards medication adherence in patients undergoing repeated treatment. One dominant factor in families is the presence of family informational support compared to families without such support, even after controlling for variables like knowledge about schizophrenia, family instrumental support, and family appraisal/recognition support.

Conflict of Interest Declaration

There are no conflicts of interest in this study.

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References

1. World Health Organization (WHO). Schizophrenia. October. 2019. Available from: <https://www.who.int/news-room/fact-sheets/detail/schizophrenia>
2. Farah FH. Schizophrenia: An Overview. Asian Journal of Pharmaceutics (AJP) [Internet]. 2018 May 30;12(02). Available from: <http://www.asiapharmaceutics.info/index.php/ajp/article/view/2319>
3. RSJSH. Laporan Rekam Medis RSJSH. Jakarta; 2021. Available from: <https://rsjsh.co.id/ppid>
4. Pratiwi SH, Marchira CR, Hendrartini J. Faktor-Faktor Yang Mempengaruhi Rawat Inap Ulang Pasien Skizofrenia Pada Era Jaminan Kesehatan Nasional Di Rumah Sakit Jiwa GRHASIA Pemda DIY. Jurnal Kebijakan Kesehatan Indonesia. 2017;06(1):20–8. Available from: <https://doi.org/10.22146/jkki.v6i1.29005>
5. Lestari MD. Analisis Hubungan Faktor Kepatuhan Minum Obat dengan Tingkat Kekambuhan (relapse) Pada Pasien Rawat Jalan Skizofrenia di Rumah Sakit Khusus Hayunanto Medical Center Malang Periode 2016 Dan 2017 [Internet]. Universitas Islam Negeri Maulana Malik Ibrahim; 2019. Available from: <http://etheses.uin-malang.ac.id/13496/>
6. Yanti N, Armiyadi M. Hubungan Dukungan Keluarga Terhadap Kepatuhan Minum Obat pasien Skizofrenia. Jurnal Ilmiah Mahasiswa Fakultas Keperawatan. 2020;IV(3):1–11. Available from: <https://jim.usk.ac.id/FKep/article/view/15191>
7. Kretchy IA, Appiah B, Agyabeng K, Kwarteng EM, Ganyaglo E, Aboagye GO. Psychotropic medicine beliefs, side effects and adherence in schizophrenia: a patient–caregiver dyad perspective. International Journal of Clinical Pharmacy. 2021;43(5):1370–80. Available from: <https://doi.org/10.1007/s11096-021-01264-9>
8. Pardede JA, Silitonga E, Laia GEH. The effects of cognitive therapy on changes in symptoms of hallucinations in schizophrenic patients. Indian Journal of Public Health. 2020;11(10):257. Available from: <https://api.semanticscholar.org/CorpusID:234623349>
9. Nursalam. Metodologi Penelitian Ilmu Keperawatan Pendekatan Praktis Edisi 5. Jakarta: Salemba Medika; 2020.
10. Bukit EPB. Hubungan Dukungan Keluarga Dengan Kepatuhan Minum Obat Pasien Skizofrenia Di Poli Rawat Jalan Rumah Sakit Universitas Sumatera Utara. Universitas Sumatera Utara; 2019. Available from: <https://repositori.usu.ac.id/handle/123456789/23557>

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11. Hardisman. Analisis Data dan Statistik Dasar dengan Program GNU-PSPP. Yogyakarta: Bintang Pustaka Madani; 2021.
12. Setyaningsih T, Fitria D, Supriyanah S. Hubungan Faktor-Faktor Yang Memengaruhi Kepatuhan Minum Obat Dengan Kepatuhan Pasien Skizofrenia Yang Mengalami Halusinasi Di Rs Husada. *Jurnal Kesehatan Holistic*. 2019;2(1):13–29. Available from: <http://dx.doi.org/10.33377/jkh.v2i1.60>
13. Sun Y, Wang M, Zhou Y, Wang L, Zhang H, Lv Y, et al. The mediating effect of family function and medication adherence between symptoms and mental disability among Chinese patients with schizophrenia: a cross-sectional study. *Psychology, Health and Medicine*. 2019;24(5):559–69. Available from: <https://doi.org/10.1080/13548506.2018.1533248>
14. Tristiana RD, Triantoro B, Nihayati HE, Yusuf A, Abdullah KL. Relationship Between Caregivers' Burden of Schizophrenia Patient with Their Quality of Life in Indonesia. *Journal of Psychosocial Rehabilitation and Mental Health*. 2019;6(2):141–8. Available from: <https://doi.org/10.1007/s40737-019-00144-w>
15. Rahmawati, Iva Milia Hani & Rosyidah I. Modul Terapi Family Psychoeducation (FPE) Untuk keluarga. Malang: Media Nusa Creative; 2020.